

WHAT IS CLAIMED IS:

- 1 1. A method for controlling and providing access to a file to at least one
2 remote computer over a network, comprising:
3 maintaining metadata about files maintained at remote storage
4 locations;
5 receiving a request from the remote computer for a filename of a
6 requested file over the network;
7 determining from the metadata one remote storage location address
8 associated with the filename where the requested file is located;
9 updating the metadata for the requested file; and
10 sending the storage location address to the remote computer.

- 1 2. The method of claim 1, wherein the remote computer is a source code
2 management system client.

- 1 3. The method of claim 1, wherein the storage location address identifies
2 a storage device that is at a geographical location closer to the remote computer than
3 a location of the metadata.

- 1 4. The method of claim 3, wherein the request is for checking-out the
2 requested file corresponding to the filename, and further comprising:
3 locking the requested file;
4 returning a response code to the remote computer indicating that file check-out
5 is successful; and
6 updating the metadata indicating that the requested file is checked-out and
7 locked.

- 1 5. The method of claim 3, wherein the request is for checking-in the
2 requested file corresponding to the filename, and further comprising:
3 updating the metadata indicating the requested file is unlocked; and

4 returning a response code indicating that the file check-in is successful.

1 6. The method of claim 1, further comprising:
2 processing a pattern of requests for the file received from remote computers at
3 different geographical locations;
4 determining one of a plurality of remote storage locations based on the pattern
5 of requests for the file;
6 storing the file corresponding to the file at the determined remote storage
7 location; and
8 saving a correspondence between the file and the storage location address in
9 the metadata.

1 7. The method of claim 6, wherein the determined remote storage
2 location is at a geographical location that is more proximate to the remote computer
3 having more requests for the file than other remote computers.

1 8. The method of claim 6, wherein the determined remote storage
2 location is selected from the plurality of remote storage locations to minimize a
3 distance the requested file is transmitted between each remote computer and the
4 remote storage location based on the number of requests for the file from each remote
5 computer.

1 9. The method of claim 1, wherein the remote computer is a source code
2 management system client, and the request is one of check-in, check-out, extract,
3 lock, unlock, delete.

1 10. A method for accessing a file in a source code management system,
2 comprising:
3 sending a first request for a file;

4 receiving a storage location address containing the file in response to the first
5 request;
6 sending a second request to the storage location address; and
7 receiving an access to the file from the storage location address.

1 11. The method of claim 10, wherein the first request is for checking-out
2 the file, and further comprising:
3 downloading the file from the storage location address.

1 12. The method of claim 10, wherein the first request is for checking-in
2 the file, and further comprising:
3 sending a new version of the file to the storage location address.

1 13. The method of claim 10, further comprising:
2 receiving a first response code from a remote computer in response to the first
3 request; and
4 receiving a second response code from the storage location in response to the
5 second request.

1 14. A system for controlling and providing access to a file to remote
2 computers over a network, wherein remote storage locations are accessible over the
3 network, comprising:
4 metadata including information about files at the remote storage locations;
5 means for receiving a request from one remote computer for a filename of a
6 requested file over the network;
7 means for determining from the metadata one storage location address of one
8 remote storage location associated with the filename where the requested file is
9 located;
10 means for updating the metadata for the requested file; and

11 means for sending the remote storage location address to the remote
12 computer.

1 15. The system of claim 14, wherein the remote computer is a source code
2 management system client.

1 16. The system of claim 14, wherein the storage location address identifies
2 a storage device that is at a geographical location closer to the remote computer than
3 a location of the metadata.

1 17. The system of claim 16, wherein the request is for checking-out the
2 requested file corresponding to the filename, and further comprising:
3 means for locking the requested file;
4 means for returning a response code to the remote computer indicating that file
5 check-out is successful; and
6 means for updating the metadata indicating that the requested file is checked-out
7 and locked.

1 18. The system of claim 16, wherein the request is for checking-in the
2 requested file corresponding to the filename, and further comprising:
3 means for updating the metadata indicating the requested file is unlocked; and
4 means for returning a response code indicating that the file check-in is
5 successful.

1 19. The system of claim 14, further comprising:
2 means for processing a pattern of requests for the file received from remote
3 computers at different geographical locations;
4 means for determining one of a plurality of remote storage locations based on
5 the pattern of requests for the file;

6 means for storing the file corresponding to the file at the determined remote
7 storage location; and

8 means for saving a correspondence between the file and the storage location
9 address in the metadata.

1 20. The system of claim 19, wherein the determined remote storage
2 location is at a geographical location that is more proximate to the remote computer
3 having more requests for the file than other remote computers.

1 21. The system of claim 19, wherein the determined remote storage
2 location is selected from the plurality of remote storage locations to minimize a
3 distance the requested file is transmitted between each remote computer and the
4 remote storage location based on the number of requests for the file from each remote
5 computer.

1 22. The system of claim 14, wherein the remote computer is a source
2 code management system client, and the request is one of check-in, check-out,
3 extract, lock, unlock, delete.

1 23. A system for accessing a file in a source code management system,
2 comprising:
3 means for sending a first request for a file;
4 means for receiving a storage location address containing the file in response
5 to the first request;
6 means for sending a second request to the storage location address; and
7 means for receiving an access to the file from the storage location address.

1 24. The system of claim 23, wherein the first request is for checking-out
2 the file, and further comprising:
3 means for downloading the file from the storage location address.

1 25. The system of claim 23, wherein the first request is for checking-in the
2 file, and further comprising:
3 means for sending a new version of the file to the storage location address.

1 26. The system of claim 23, further comprising:
2 means for receiving a first response code from a remote computer in response
3 to the first request; and
4 means for receiving a second response code from the storage location in
5 response to the second request.

1 27. An article of manufacture including code for controlling and
2 providing access to a file at storage locations on a network to at least one remote
3 computer over the network, wherein the code is capable of causing operations
4 comprising:
5 maintaining metadata about files maintained at remote storage
6 locations;
7 receiving a request from the remote computer for a filename of a
8 requested file over the network;
9 determining from the metadata one remote storage location address
10 associated with the filename where the requested file is located;
11 updating the metadata for the requested file; and
12 sending the storage location address to the remote computer.

1 28. The article of manufacture of claim 27, wherein the remote computer
2 is a source code management system client.

1 29. The article of manufacture of claim 27, wherein the storage location
2 address identifies a storage device that is at a geographical location closer to the
3 remote computer than a location of the metadata.

1 30. The article of manufacture of claim 29, wherein the request is for
2 checking-out the requested file corresponding to the filename, and further comprising:
3 locking the requested file;
4 returning a response code to the remote computer indicating that file check-out
5 is successful; and
6 updating the metadata indicating that the requested file is checked-out and
7 locked.

1 31. The article of manufacture of claim 29, wherein the request is for
2 checking-in the requested file corresponding to the filename, and further comprising:
3 updating the metadata indicating the requested file is unlocked; and
4 returning a response code indicating that the file check-in is successful.

1 32. The article of manufacture of claim 27, further comprising:
2 processing a pattern of requests for the file received from remote computers at
3 different geographical locations;
4 determining one of a plurality of remote storage locations based on the pattern
5 of requests for the file;
6 storing the file corresponding to the file at the determined remote storage
7 location; and
8 saving a correspondence between the file and the storage location address in
9 the metadata.

1 33. The article of manufacture of claim 32, wherein the determined remote
2 storage location is at a geographical location that is more proximate to the remote
3 computer having more requests for the file than other remote computers.

1 34. The article of manufacture of claim 32, wherein the determined remote
2 storage location is selected from the plurality of remote storage locations to minimize
3 a distance the requested file is transmitted between each remote computer and the

4 remote storage location based on the number of requests for the file from each remote
5 computer.

1 35. The article of manufacture of claim 27, wherein the remote computer
2 is a source code management system client, and the request is one of check-in, check-
3 out, extract, lock, unlock, delete.

1 36. A article of manufacture including code for accessing a file in a source
2 code management system, wherein the code is capable of causing operations
3 comprising:

4 sending a first request for a file;
5 receiving a storage location address containing the file in response to the first
6 request;
7 sending a second request to the storage location address; and
8 receiving an access to the file from the storage location address.

1 37. The article of manufacture of claim 36, wherein the first request is for
2 checking-out the file, and further comprising:
3 downloading the file from the storage location address.

1 38. The article of manufacture of claim 36, wherein the first request is for
2 checking-in the file, and further comprising:
3 sending a new version of the file to the storage location address.

1 39. The article of manufacture of claim 36, further comprising:
2 receiving a first response code from a remote computer in response to the first
3 request; and
4 receiving a second response code from the storage location in response to the
5 second request.